

**WHAT IS CLAIMED IS:**

1. A cross tie bracket attachable to a rod and a building structural element, the cross tie bracket comprising:  
a generally cylindrical body sized to receive the rod; and  
a base attached to the body, the base being attachable to the building structural element;  
wherein the body and the base secure the rod to the building structural element.
2. The cross tie bracket of claim 1 further comprising at least one end plate disposed adjacent to an end of the body, the end plate being configured to secure the rod to the bracket.
3. The cross tie bracket of claim 2 wherein the end plate further includes a rod aperture sized to receive the rod.
4. The cross tie bracket of claim 1 wherein the body has an inner diameter sized slightly larger than an outer diameter of the rod.
5. The cross tie bracket of claim 4 wherein the body is sized and configured to have an inner surface thereof in contact with the rod when inserted therein.
6. The cross tie bracket of claim 1 further comprising at least one mounting aperture formed in the base for attaching the bracket to the building structural element.

7. The cross tie bracket of claim 1 further comprising at least one screw aperture disposed in the base for temporarily securing the bracket to the building structural with screws, nails or fasteners.

8. The cross tie bracket of claim 1 further comprising at least one drill guide pin alignment aperture for aligning a drill guide over the bracket.

9. The cross tie bracket of claim 1 further comprising a gusset disposed between the body and the base, the gusset being sized and configured to locate the body a prescribed distance above the base.

10. The cross tie bracket of claim 9 wherein the gusset is attached to the body and the base.

11. The cross tie bracket of claim 1 further comprising a first end plate disposed adjacent to a first end of the body and a second end plate disposed adjacent to a second end of the body, the first and second end plates being configured to secure the rod to the bracket.

12. The cross tie bracket of claim 11 further comprising a gusset disposed between the body and the base and attached to at least one of the body, the base, and an end plate.

13. The cross tie bracket of claim 1 wherein the bracket is configured to be used as a drill guide for another cross tie bracket.

14. A method of forming a cross tie used to attach a rod to a building structural element, the method comprising the steps:

forming a generally planar base; and  
attaching a generally cylindrical body to the base, the body being sized and configured to receive the rod.

15. The method of claim 14 further comprising the step of attaching a first end plate to a first end of the body and a second end plate to a second end of the body, the first and second end plates being configured to receive the rod.

16. The method of claim 15 wherein each of the end plates further includes a rod aperture sized to receive the rod.

17. The method of claim 14 wherein the body has an inner diameter sized slightly larger than an outer diameter of the rod.

18. The method of claim 17 further comprising the step of sizing the body to have an inner surface in contact with the rod when the rod is inserted therein.

19. The method of claim 14 further comprising the step of forming at least one mounting aperture in the base for attaching the bracket to the building structural element.

20. The method of claim 14 further comprising the step of forming at least one screw aperture in the base for temporarily securing the bracket to the building structural element with screws, nails or fasteners.

21. The method of claim 14 further comprising the step of forming at least one drill guide pin alignment aperture in the base.

22. The method of claim 14 further comprising the step of attaching a gusset between the body and the base, the gusset being sized and configured to locate the body a prescribed distance above the base.

23. A cross tie bracket attachable to a rod and a building structural element, the cross tie bracket comprising:

- a generally U-shaped body sized to receive and secure the rod;
- a base attached to the body, the base being attachable to the building structural element; and
- a first and a second end plate attached to respective ends of the body and the base, each of the end plates having a rod aperture formed therein for insertion of the rod through the body.

24. The bracket of claim 23 further comprising at least one mounting aperture formed in the base for attaching the bracket to the building structural element.

25. The bracket of claim 23 further comprising at least one screw aperture disposed in the base for temporarily securing the bracket to the building structural element with screws, nails or fasteners.

26. The bracket of claim 23 further comprising at least one drill guide pin alignment aperture for aligning a drill guide over the bracket.

27. A cross tie bracket attachable to a rod and a building structural element, the cross tie bracket comprising:

- a base attachable to the building structural element;
- a first generally planar body element attached perpendicular to the base;
- a second generally planar body element attached perpendicular to the base and disposed generally parallel to the first body element, the second body element being disposed a distance greater than the diameter of the rod from the first body element;
- a first end plate disposed generally perpendicular to the base and adjacent to same ends of the first and second body elements, the first end plate having a rod aperture formed therein; and
- a second end plate disposed generally perpendicular to the base and adjacent to the same ends of the first and second body elements and opposite the first end plate, the second end plate having a rod aperture formed therein;

wherein when the rod is inserted into the rod apertures formed in the first and second end plates, the rod being disposed between the first and second body elements.

28. The bracket of claim 27 further comprising at least one mounting aperture formed in the base for attaching the bracket to the building structural element.

29. The bracket of claim 27 further comprising at least one screw aperture disposed in the base for temporarily securing the bracket to the building structural element with screws, nails or fasteners.

30. The bracket of claim 27 further comprising at least one drill guide pin alignment aperture for aligning a drill guide over the bracket.

31. A cross tie bracket attachable to a rod and a building structural element, the cross tie bracket comprising:

- a first generally L-shaped body element having a base portion and a bracket portion disposed generally perpendicular to the base portion;

- a second generally L-shaped body element having a base portion and a bracket portion disposed generally perpendicular to the base portion;

- a first endplate disposed adjacent to same ends of the first and second body elements, the first end plate having a rod aperture formed therein;

- a second endplate disposed adjacent to same ends of the first and second body elements and opposite the first end plate, the second end plate having a rod aperture formed therein;

- wherein the first and second body elements are disposed in generally parallel relation to each other such that when the rod is inserted into the rod apertures, the bracket portions of the body elements are disposed on either side of the rod.

32. The bracket of claim 31 further comprising at least one mounting aperture formed in a base portion of at least one body element for securing the bracket to the building structural element.

33. The bracket of claim 31 further comprising at least one screw aperture formed in a base portion of at least one body element for temporarily

securing the bracket to the building structural element with screws, nails or fasteners.

34. The bracket of claim 31 further comprising at least one drill guide pin alignment aperture formed in a base portion of at least one body element for aligning the drill guide over the bracket.

35. A drill guide for aligning a drill bit with a mounting aperture of a cross tie bracket, the drill guide comprising:

a generally planar alignment plate;

at least one alignment pin attached generally perpendicular to the alignment plate; and

at least one mounting alignment aperture formed in the alignment plate;

wherein the alignment pin linearly aligns the mounting alignment aperture with the mounting aperture when the drill guide is placed on the cross tie bracket.

36. The drill guide of claim 35 further comprising an attachment bracket attached to the alignment plate for securing the drill guide to the bracket.

37. The drill guide of claim 36 wherein the cross tie bracket has a generally cylindrical body and the attachment bracket is configured to be engageable to the body.

38. The drill guide of claim 35 further comprising attachment means for securing the drill guide to the bracket.

39. The drill guide of claim 38 wherein the attachment means are one of screws, nails or fasteners.

40. The drill guide of claim 38 wherein the attachment means are a spring clip.

41. The drill guide of claim 38 wherein the attachment means are a magnet.

42. The drill guide of claim 35 wherein the cross tie bracket has a body and the alignment pin is sized to position the alignment plate away from the body.

43. The drill guide of claim 35 further comprising at least one screw alignment aperture formed in the alignment plate, the screw alignment aperture being linearly aligned with a screw aperture of the cross tie bracket when the drill guide is attached to the cross tie bracket.

44. The drill guide of claim 35 wherein the drill guide alignment pin is sized and configured to be insertable into a drill guide alignment aperture of the cross tie bracket.

45. The drill guide of claim 44 wherein the end of the alignment pin is rounded to facilitate insertion into the cross tie bracket.



46. The drill guide of claim 35 further comprising at least one handle attached to the alignment plate for positioning the drill guide on the cross tie bracket.

47. The drill guide of claim 46 wherein the handle is configured to hang the drill guide.

48. The drill guide of claim 35 wherein the number of drill guide alignment apertures is at least equal to the number of mounting apertures formed in the cross tie bracket.